

**IN THE UNITED STATES DISTRICT COURT FOR THE
NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION**

CHRISTINE M. JONES, individually and as)	
SPECIAL ADMINISTRATOR OF THE)	
ESTATE OF TIMOTHY JONES,)	
)	
Plaintiff,)	
)	Case No. 12 C 771
v.)	
)	Judge Joan H. Lefkow
UNION PACIFIC RAILROAD COMPANY)	
and STEVEN PIGNATO,)	
)	
Defendants.)	

OPINION AND ORDER

In this suit, Christine M. Jones (“plaintiff”) brings claims against Union Pacific Railroad Company (“Union Pacific”) and Steven Pignato, a locomotive engineer, for negligence, wrongful death, and loss of consortium. (*See* dkt. 2.) Plaintiff also seeks to hold Union Pacific liable for Pignato’s conduct under *respondeat superior*. (*Id.*) The claims stem from the death of plaintiff’s husband, Timothy Jones (“Jones”), who was killed on August 4, 2010 when his car collided with a train owned by Union Pacific and operated by Pignato. (*Id.*) Six motions to bar expert opinions and testimony are before the court: three filed by defendants (dkts. 135, 137, 139) and three filed by plaintiff (dkts. 141, 142, 143). For the reasons stated below, the motions are granted in part and denied in part.¹

BACKGROUND

Filed concurrently with this opinion and order is the court’s ruling on defendants’ motion for summary judgment. Because the court has set forth the relevant background facts in that

¹ The court has jurisdiction under 28 U.S.C. § 1332(a). Venue is appropriate in this district under 28 U.S.C. § 1391(b).

opinion, it will not repeat those facts here, except as relevant to the resolution of the instant motions.²

Jones was killed on a drizzly morning in August 2010 when his car collided with a train owned by Union Pacific and operated by Pignato. (Dkt. 132 ¶¶ 25–26.) The accident took place at a railroad crossing in Des Plaines, Illinois. (*Id.* ¶ 8.) At the time of the accident, the train was equipped with a video recording system, which recorded both the front and rear views of the locomotive. (*Id.* ¶¶ 34–35; dkt. 140-6 Exh. F.) The train also had an event recorder, which recorded and monitored data about the locomotive including its speed and whether the brakes were applied. (Dkt. 132 ¶¶ 32–33.) The warning system at the railroad crossing where the accident occurred also contained a data recorder, which collected information about the system’s operation. (*Id.* ¶ 14.) Plaintiff, Jones’s widow, filed this suit on her own behalf and as special administrator of her husband’s estate. (Dkt. 2.)

Many of the disputes in this case relate to the authenticity of the available video recordings. After Union Pacific produced a thirty-minute, forward-facing video in discovery, plaintiff claimed that the video had been altered (largely because Jones’s Buick is not visible in the video, either before or after impact) and moved to compel production of the original electronic video data from the train’s hard drive. (Dkt. 29.) The court denied the motion because the hard drive was no longer in Union Pacific’s possession, custody, or control (dkt. 57), and plaintiff moved to bar the video entirely. (Dkt. 63.) The court denied that motion as well. (Dkt. 81.) Nevertheless, the parties have retained experts to opine on the authenticity of the video, and, consequently, the weight that should be assigned to it by the jury. Moreover, while reviewing the report of defendants’ expert Bruce E. Koenig, plaintiff’s counsel discovered that

² The court has culled the facts in this brief background from the parties’ L.R. 56.1 statements, their briefs supporting and opposing the *Daubert* motions, and the docket.

Koenig had reviewed a fifteen-minute, forward-facing video, rather than the thirty-minute video. (See dkt. 143 at 7.) While Union Pacific maintains that the fifteen-minute video is merely a shorter version of the thirty-minute video (dkt. 151 at 1–2), plaintiff argues that the existence of two videos supports her claim that the video evidence has been altered. (Dkt. 143 at 8.) As discussed below, the parties have retained experts to testify on other subjects as well.

LEGAL STANDARD

The admission of expert opinion testimony is governed by Federal Rule of Evidence 702 and *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579, 113 S. Ct. 2786, 125 L. Ed. 2d 469 (1993). See *Bielskis v. Louisville Ladder, Inc.*, 663 F.3d 887, 893 (7th Cir. 2011). Rule 702 states that a witness who is qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of opinion or otherwise provided that “(a) the expert’s scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue; (b) the testimony is based on sufficient facts or data; (c) the testimony is the product of reliable principles and methods; and (d) the expert has reliably applied the principles and methods to the facts of the case.” Fed. R. Evid. 702. To admit expert testimony under this rule, the court must determine that (1) the witness is qualified; (2) the expert’s methodology is reliable; and (3) the testimony will assist the trier of fact to understand the evidence or to determine a fact in issue. *Myers v. Ill. Cent. R.R. Co.*, 629 F.3d 639, 644 (7th Cir. 2010).

Daubert set out four factors the court may consider when assessing the reliability of an expert's methodology: (1) whether the theory is based on scientific or other specialized knowledge that has been or can be tested; (2) whether the theory has been subject to peer review; (3) the known or potential rate of error and the existence of standards controlling the theory’s

operation; and (4) the extent to which the theory is generally accepted in the relevant community. *Daubert*, 509 U.S. at 593–94; *see also Kumho Tire Co., Ltd. v. Carmichael*, 526 U.S. 137, 151, 119 S. Ct. 1167, 143 L. Ed. 2d 238 (1999). These factors, however, are not a “definitive checklist or test,” *Daubert*, 509 U.S. at 593, and the importance of different factors will vary based on “the particular circumstances of the particular case at issue.” *Kumho*, 526 U.S. at 150. The objective “is to make certain that an expert, whether basing testimony upon professional studies or personal experience, employs in the courtroom the same level of intellectual rigor that characterizes the practice of an expert in the relevant field.” *Id.* at 152.

Thus, the inquiry under Rule 702 “is a flexible one.” *Daubert*, 509 U.S. at 594. “Determinations on admissibility should not supplant the adversarial process; ‘shaky’ expert testimony may be admissible, assailable by its opponents through cross-examination.” *Gayton v. McCoy*, 593 F.3d 610, 616 (7th Cir. 2010). The proponent of the testimony bears the burden of proving that the proffered expert opinions meet these requirements, and the district court has “wide latitude in performing its gate-keeping function.” *Bielskis*, 663 F.3d at 894.

ANALYSIS

As noted above, both plaintiff and defendants have filed motions to bar expert opinions and testimony. The court addresses defendants’ motions first before turning to those filed by plaintiff.

I. Defendants’ Motions

A. Motion to Bar Paul Byrnes

Plaintiff named Paul Byrnes as an expert witness. (Dkt. 136-1 Exh. A.) Byrnes worked as a locomotive engineer, as well as a trial attorney for the Federal Railroad Administration (“FRA”), before becoming a railroad safety consultant. (Dkt. 136-2 Exh. B at 3.) Plaintiff

retained Byrnes to testify about two topics: (1) whether “Union Pacific’s actions were the cause in whole or part of the accident/incident that occurred on August 4, 2010” (*id.* at 2); and (2) whether Union Pacific properly preserved evidence in this case, specifically the forward-facing, thirty-minute video taken from the locomotive at the time of the accident (dkt. 136-3 Exh. C at 2). Byrnes provided his opinions on the first topic in a February 24, 2014 report and his opinions on the second topic in a February 27, 2014 report.

1. February 24, 2014 Report

i. Opinions 1–4, 11, 13

Defendants first argue that opinions 1–4, 11, and 13 of the February 24, 2014 report should be excluded because they are statements of fact, rather than expert opinions. Those paragraphs provide as follows:

1. A train-vehicle collision resulting in the death of the vehicle operator occurred at or about 8:10 a.m. on August 4, 2010 at the Des Plaines River Road highway-rail crossing.

2. The track structure at the site of the collision consists of three main lines . . . with a maximum authorized timetable speed of 70 miles per hour.

3. The track in this area is very heavily traveled with an average reported daily train count of 68 trains with speeds over the crossing ranging from 20 to 70 mph.

4. The track in this area is reportedly FRA class 5 with a maximum federal track speed of 90 mph for passenger trains and 80 mph for freight trains.

. . . .

11. The locomotive engineer was riding in the cab of the Metra 160 locomotive by himself at the time of the collision.

. . . .

13. The locomotive cab video and the event data recorder download from the . . . controlling locomotive . . . confirm that at no time before the collision was the locomotive horn sounded as the train approached and occupied Des Plaines River Road.

(Dkt. 136-2 Exh. B at 3 ¶¶ 1–4, 4 ¶ 11, 5 ¶ 13.)

The court agrees that opinions 1–4 and 11 contain statements of fact, not opinions. While an expert may testify about facts forming the basis of his other opinions under Federal Rule of Evidence 703, provided that the facts are otherwise admissible or their probative value substantially outweighs their prejudicial effect, there is no indication that these facts support Byrnes’s other opinions. To the extent the facts form the basis of Byrnes’s opinions, he may testify to them. To the extent they do not, however, the statements are irrelevant and therefore inadmissible.

Opinion #13 is a closer call because Byrnes is opining on whether Pignato sounded the locomotive horn based on his review of the forward-facing video and the event recorder data. His opinion is inadmissible to the extent it is based on his observation of the video, as the jury may simply watch it themselves and come to a conclusion. Byrnes may offer an opinion, however, as to whether the locomotive horn sounded based on his examination of the event recorder data. This opinion will assist the trier of fact because interpreting the data is outside the range of knowledge of the average juror.

ii. Opinions About the Quiet Zone

Opinions 6–10³ pertain to the railroad crossing’s status as a quiet zone. In opinions 6, 7, and 9, Byrnes criticizes this status. Opinion #6 states, “Despite having a long history of train-vehicle collisions—including a number resulting in fatalities—Des Plaines River Road remains a ‘legacy’ Chicago-area ‘quiet zone’ highway-rail crossing[] where the horn is not sounded by the

³ The report does not contain an opinion #5.

locomotive engineers on approaching trains unless an emergency situation is perceived.” (*Id.* at 3–4 ¶ 6.) Similarly, opinion #7 provides, “Despite an apparent lack of the type of safety measures required for any ‘new’ quiet zone crossing, e.g., four-quadrant gates, barriers, traffic channelization devices, Des Plaines River Road continues to be a quiet-zone crossing.” (*Id.* at 4 ¶ 7.) And opinion #9 states, “Union Pacific is on record as being opposed to quiet-zone crossings; stating on its . . . website that such crossings ‘compromise the safety of railroad employees, customers, and the general public.’” (*Id.* at 4 ¶ 9.) Plaintiff has not alleged, however, that Union Pacific was negligent because of the crossing’s status as a quiet zone. Indeed, Byrnes testified in his deposition that he is criticizing the federal government and the City of Des Plaines—not Union Pacific—for designating the crossing as a quiet zone. (*See* dkt. 136-4 Exh. D (“Byrnes Dep.”) at 67: 22–71: 13.) Byrnes could testify based on his experience as a locomotive engineer that the crossing’s designation as a quiet zone should have caused Pignato to be more alert. As is, however, opinions 6, 7, and 9 are not relevant and are therefore inadmissible.

The same is true for opinions 8 and 10, which suggest Union Pacific should have posted warning signs or provided its employees with more training. (*See* dkt. 136-2 Exh. B at 4 ¶¶ 8, 10.) Because plaintiff has alleged neither theory of liability, the opinions are not relevant and are inadmissible.

iii. Opinions Gleaned From Watching the Video

In opinions 12 and 14, Byrnes describes what he observed while watching the thirty-minute, forward-facing video recorded from the locomotive at the time of the accident. In opinion #12, Byrnes opines, “The locomotive cab video appears to show that the locomotive engineer’s view of the crossing was at least partially blocked by vegetation and the skewed angle

of the crossing as the train approached Des Plaines River Road on the morning of August 4, 2010.” (*Id.* at 5 ¶ 12.) Opinion #14 states, “Although the sound of the impact with the Jones vehicle can be heard on the soundtrack that accompanies the locomotive cab video, the vehicle is not visible at any time while watching the video.” (*Id.* at 5 ¶ 14.) These opinions are not admissible because watching the video and observing what it shows are within the ken of the average juror; accordingly, the opinions would not assist the trier of fact.

iv. Opinions on the Operation of the Crossing Gates

Byrnes opines on the operation of the crossing gates in opinions 15, 16, and 18.⁴ Opinion #15 states that under safety standards promulgated by the FRA, “gate arms must be fully down in the horizontal position at least five (5) seconds before the arrival of any train at the crossing.” (*Id.* at 5 ¶ 15); *see also* 49 C.F.R. § 234.223. Then, Byrnes notes that “[a]lthough [Pignato] testified at deposition that he could see that the crossing gate was down on the side of the crossing where the Jones vehicle came from before the collision, [eyewitness Hank Kolak] . . . has repeatedly stated . . . that the crossing gate on his . . . side of the crossing did not come down until after the train struck the Jones vehicle.” (Dkt. 136-2 Exh. B. at 5–6 ¶ 16.) Byrnes concludes that “[i]f the crossing gate arm in question was not fully down in the horizontal position at least five seconds before Metra 160 arrived at the crossing, Union Pacific was in violation of the FRA Grade Crossing Signal System Safety Standards.” (*Id.* at 6 ¶ 18.)

These three opinions, which comment on the legality of Union Pacific’s conduct based on a certain set of facts, would not assist the jury. As Byrnes acknowledged in his deposition, his opinion is essentially that “‘if’ [the gates] were not activated in accordance with what they’re required [to] do by federal law, then they’re in violation[.]” (Byrnes Dep. at 88: 2–4.) This

⁴ The report does not contain an opinion #17.

circular statement is not an expert opinion within the meaning of Federal Rule of Evidence 702.

Furthermore, his opinion comes dangerously close to constituting a legal conclusion on an ultimate issue in the case, which is not permissible. *See Good Shepherd Manor Found., Inc. v. City of Mokenca*, 323 F.3d 557, 564 (7th Cir. 2003) (“[E]xpert testimony as to legal conclusions that will determine the outcome of the case is inadmissible.” (citation omitted)). Illinois law provides “a remedy for negligence resulting from violation of federal railroad safety regulations” by “making the violation of a safety regulation intended for the protection of the class of persons to whom the plaintiff belongs . . . prima facie evidence of negligence.” *Nunez v. BNSF Ry. Co.*, 730 F.3d 681, 682 (7th Cir. 2013) (citations omitted). Thus, if plaintiff chooses to proceed under a *prima facie* negligence theory at trial, Byrnes’s opinion would amount to a legal conclusion on an outcome-determinative issue—namely, whether Union Pacific violated federal regulations, and thus breached its duty of care. Should plaintiff wish to pursue this theory at trial, she may request a jury instruction so that the court can instruct the jury on the law. Byrnes’s opinions on the operation of the gates, however, will not be allowed.

v. Opinions on Pignato’s Actions

Byrnes opines in opinions 19 and 20, “If the locomotive engineer could not be absolutely certain that the gates and lights at the Des Plaines River Road were fully activated before the train entered the crossing, he should have approached the crossing prepared to stop short of it until it could be determined that the devices were fully activated” and “should have been sounding the locomotive horn in the required pattern as the train approached the crossing.” (Dkt. 136-2 Exh. B at 6 ¶¶ 19, 20.) Defendants argue that these opinions are based on improper credibility determinations, because Byrnes ignores the evidence suggesting that the gates were in fact down as the train approached the crossing. Expert witnesses, however, “routinely base their

opinions on assumptions that are necessarily at odds with their adversary’s view of the evidence.” *Richman v. Sheahan*, 415 F. Supp. 2d 929, 942 (N.D. Ill. 2006) (citations omitted). Indeed, “[t]here is a critical distinction between . . . testifying . . . [that] one witness is more credible than another and an expert giving an opinion based upon factual assumptions, the validity of which are for the jury to determine.” *Id.* While the former is impermissible, the latter is not. *See id.* Here, Byrnes is entitled to give his opinion based on factual assumptions—the truth of Kolak’s testimony that the gates were not down when the train reached the crossing.

Defendants argue that opinion #20 attempts to define the term “emergency situation” as it is used in the federal regulations. *See* 49 C.F.R. § 222.23(a)(2) (“Notwithstanding . . . provisions addressing the establishment of a quiet zone, . . . this part does not preclude the sounding of locomotive horns in emergency situations.”). Although Byrnes testified in his deposition that he considered the circumstances described in opinion #20 to be an emergency situation (Byrnes Dep. at 32: 16–18), the opinion itself is not couched in legal terms and does not purport to interpret the regulation. Instead, the opinion “provid[es] concrete information against which to measure [an] abstract legal concept[.]”—specifically, the emergency situation standard. *See United States v. Blount*, 502 F.3d 674, 680 (7th Cir. 2007). Byrnes’s opinion is admissible.

vi. Opinions on What Pignato Might Have Seen

Byrnes speculates in opinions 21 and 22 about Pignato’s ability to see Jones’s vehicle before impact. Those opinions provide, “If [Pignato] was being alert and attentive as the lead locomotive approached the crossing, it is hard to understand why he did not see the Jones vehicle just before impact—particularly if Mr. Jones drove around the crossing gate to enter the crossing as was claimed” and “if the headlights were illuminated.” (Dkt. 136-2 Exh. B at 6 ¶¶ 21, 22.)

These statements are inadmissible because they amount to nothing more than unsupported speculation, rather than expert opinions that will assist the trier of fact.

vii. Opinion on Avoiding the Accident

In opinion #23, Byrnes states as follows: “Given the rapid slowing possible on this type of train when placed in emergency . . . it is likely that the Jones’ [*sic*] vehicle would have had time to clear the fouling envelope of track one if the train had been placed in emergency several seconds earlier.” (*Id.* at 7 ¶ 23.) Byrnes’s opinion lacks a sufficient basis. Indeed, he admitted at his deposition that he is not an accident reconstructionist or engineer and that he does not have the qualifications to perform an accident reconstruction analysis. (*See* Byrnes Dep. at 60: 1–9.) Rather, he testified that the basis for this opinion is his “experience running these types of trains.” (*Id.* at 60: 18–19.) There is no indication, however, that Byrnes has had sufficiently similar experiences that would allow him to opine on this issue. Absent expertise in accident reconstruction or a methodological or experiential basis for the opinion, it will not be admitted.

2. February 27, 2014 Report

Byrnes opines on Union Pacific’s preservation of the digital video recorder in his February 27, 2014 report. (*See* dkt. 136-3 Exh. C.) Specifically, Byrnes begins by noting that under 49 C.F.R. § 229.135(e), “covered railroads [must] keep data recorded by any locomotive mounted recording device installed on any locomotive involved in a reportable accident/incident in secure custody for one year.” (*Id.* at 2 ¶ 1.) Relying on a letter from the FRA’s Assistant Chief Counsel for Safety, Byrnes states that the regulation applies to this case because the FRA considers in-cab locomotive video recorders to be “locomotive-mounted recording devices” within the meaning of the regulation. (*Id.* at 2–3 ¶ 2.)

The remainder of Byrnes's report concerns whether Union Pacific complied with the regulation in preserving the video and data recorders. Byrnes acknowledges that the FRA has not specified the meaning of "secure custody," but proceeds to draw on his experience with the "secure storage of specimens collected for testing . . . under . . . alcohol and drug abuse standards" to define the term and to determine that Union Pacific fell short of its requirements. (*Id.* at 3 ¶¶ 4–5.) Defendants contend that Byrnes's opinions are inadmissible because, among other reasons, they amount to impermissible interpretations of a regulation that will not assist the trier of fact. The court agrees.

It is well established that an expert witness may not opine on the meaning of a statute or regulation. *See United States v. Caputo*, 517 F.3d 935, 942 (7th Cir. 2008) ("The 'expert' would have testified about the meaning of the statute and regulations. That's a subject for the court, not for testimonial experts." (citation omitted)); *Bammerlin v. Navistar Int'l Transp. Corp.*, 30 F.3d 898, 900 (7th Cir. 1994) ("The meaning of federal regulations is not a question of fact, to be resolved by the jury after a battle of experts. It is a question of law, to be resolved by the court."). Byrnes, however, does just that in his report; indeed, he determines that locomotive video recorders are "locomotive-mounted recording devices" within the meaning of 49 C.F.R. § 229.135(e) and spends the remainder of his report defining the term "secure custody" and applying that definition to Union Pacific. Because Byrnes impermissibly interprets the meaning of the regulation, neither his analysis nor his opinion that Union Pacific failed to comply with the regulation (which is infected with his determination of what the regulation means) will be admissible.

3. Opinions Raised in Deposition Testimony

Defendants seek to bar three other opinions to which Byrnes testified in his deposition; these opinions are not included in the two reports discussed above.

First, Byrnes opined that “[i]f the gate was up, [Jones] is certainly within his rights to rely on those gates being up. The gate being up is the same thing as a green light as far as that crossing is concerned.” (Byrnes Dep. at 46: 17–20.) Byrnes continued, “If you believe that you can safely traverse the tracks and the gates aren’t down, you continue. In fact, stopping would be the worst thing you can do.” (*Id.* at 47: 14–17.) Byrnes lacks sufficient expertise to give this opinion and has not identified any special skill or training that enabled him to reach it. Further, there is no indication that Byrnes has any support for his opinion other than his own subjective view. He does not reference the Illinois Vehicle Code, nor could he, as the Code does not support his statement. *See, e.g.*, 625 Ill. Comp. Stat. 5/11-1201(a) (“Whenever any person driving a vehicle approaches a railroad crossing where the driver is not always required to stop, the person must exercise due care and caution . . . and shall not proceed until the tracks are clear and he or she can do so safely.”). Byrnes’s opinion is inadmissible.

Second, Byrnes testified that the video taken from the digital video recorder had been altered because “there is [*sic*] absolutely no images of the vehicle at all” prior to impact. (Byrnes Dep. at 93: 6, 8–9.) Byrnes explained that the basis for his opinion is his prior experience viewing similar videos: “I’ve looked at many, many videos of grade crossing collisions” and “I’ve never seen one before or since where the vehicle was never seen in the video.” (*Id.* at 93: 9–12.) As above, Byrnes is not qualified to give this opinion. He has not indicated that he has any training or experience as a video analyst; as such, his opinion is inadmissible. *See Graves v.*

City of Waterloo, No. C10-2014, 2011 WL 4007324, at *5 (N.D. Iowa Sept. 8, 2011) (“Simply watching lots of videotape does not make one an expert in video analysis.” (citations omitted)).

Third and finally, Byrnes opined that when approaching a crossing equipped with flashing lights and gates, a locomotive engineer should be prepared for, but need not expect, a vehicle to maneuver around the gates. (Byrnes Dep. at 57: 12–13.) Defendants argue that the opinion is contrary to Illinois law, “which makes clear that an engineer is ‘allowed to presume that the vehicle will yield the right of way until such time as it becomes apparent that the vehicle has not heard or will not heed the signal.’” (Dkt. 136 at 24 (quoting *Rakers v. S. Ry. Co.*, 290 N.E.2d 421, 429, 8 Ill. App. 3d 877 (1972)).) Plaintiff disputes the state of the law. (*See* dkt. 157 at 17.) Byrnes’s opinion, however, is not contrary to the rule on which defendants rely. Rather, Byrnes’s opinion is merely that a locomotive engineer should be alert when approaching a railroad crossing. Byrnes is entitled to offer this opinion based on his experience as a locomotive engineer.

B. Motion to Bar James R. Loumiet

Plaintiff named James R. Loumiet as an expert witness. (Dkt. 138-1 Exh. A.) Loumiet holds a degree in mechanical engineering and has extensive experience in accident reconstruction. (Dkt. 138-2 Exh. B. at 15.) Since 1994, Loumiet has served as president of his own consulting firm specializing in train and traffic accident reconstruction, highway safety analysis, and vehicle event data recorder analysis, among other things. (*Id.*) Loumiet’s report provides that his “specific assignments in this case included an analysis of the train and Buick movements and operations, an evaluation of the locomotive event recorder data, an analysis of video taken from the locomotive, and an analysis of the operation of the crossing active warning system.” (*Id.* at 2.)

1. Opinions 1–6

Defendants challenge the first six opinions in Loumiet’s report and argue that they are statements of fact that will not assist the jury.⁵ Opinion #1 provides the measurements of Jones’s vehicle and the locomotive. It states, for example, that Jones’s vehicle was 16.92 feet long and 4.83 feet high, while the locomotive was fifty-six feet and two inches long and fifteen feet and 5.25 inches high. (*Id.* at 2 ¶ 1.) Loumiet testified in his deposition that he drew these figures from “the Expert AutoStats printout,” which Loumiet described as a database “commonly used by accident reconstructionists.” (Dkt. 138-3 Exh. C (“Loumiet Dep.”) at 73: 4–21.) He also testified that the measurements serve as a basis for his other opinions. (*Id.* at 74: 4–7.)

An expert witness may base an opinion on facts or data of which the expert lacks personal knowledge if the facts or data are of the type on which other experts in the field would rely. Fed. R. Evid. 703. And, as noted above, an expert may testify about the facts or data underlying his opinions as long as they are admissible in their own right; if they are not, the expert may disclose them only if “their probative value in helping the jury evaluate the opinion substantially outweighs their prejudicial effect.” *Id.* Here, however, there is no indication that these measurements underlie any of Loumiet’s opinions. If plaintiff can show that the data do in fact underlie Loumiet’s opinions, Loumiet may testify to them. As is, the measurements are inadmissible.

⁵ Before raising specific challenges to Loumiet’s report, defendants make two general arguments regarding admissibility, neither of which is persuasive. First, defendants argue that Loumiet is not qualified to perform an analysis of the data from the crossing’s warning system to determine whether the lights were flashing and the gates were down at the time of the accident. Loumiet, however, does not purport to perform such an analysis and plaintiff disclaims that he is offered for that purpose. (*See* dkt. 146 at 1 (“Loumiet is *not* being presented as [a] signal expert[.]” (emphasis in original)).) Thus, defendants’ argument is moot. Second, defendants argue that Loumiet should not be permitted to characterize his work as an “accident reconstruction.” Because defendants cite no authority in support of their position, however, the court declines to restrict the manner in which Loumiet refers to his opinions.

In opinions 2 through 5, Loumiet interprets the data contained in the event recorder that was onboard the train at the time of the accident. (*See* Loumiet Dep. at 75: 3.) For example, opinion #2 provides that “[f]or the one-minute time interval prior to impact the train was traveling between 46.3–58.9 mph.” (Dkt. 138-2 Exh. B at 2 ¶ 2.) Similarly, opinion #3 states that “[a] service application of the train brakes was made when the front of the train was 31.2 seconds and 2,434 feet prior to impact.” (*Id.* at 2 ¶ 3.) This testimony will assist the trier of fact because interpreting the event recorder data is beyond the ken of the average juror. Opinion #5, however, is not admissible in its entirety. That opinion states, “At no time during its approach to the River Road grade crossing was the locomotive horn sounded. Thus, Mr. Jones was provided no audible warning of the approaching train.” (*Id.* at 2 ¶ 5.) Although the first sentence is admissible as an interpretation of the event recorder data, the second sentence is beyond the scope of what the data supports. It will not be admitted.

In opinion #6, Loumiet relies on photographs of Jones’s vehicle and the deposition testimony of Kolak and another eyewitness Signe Hovde to opine that the locomotive “impacted the left side of the Buick . . . starting from the left-front of the Buick and continuing back to the left-side B-pillar just behind the driver’s door so that the direct impact damage extended to approximately 9.1 feet back from the front bumper.” (*Id.* at 2 ¶ 6.) Although Loumiet uses measurements and technical terms to describe the point of impact on Jones’s vehicle, his opinion amounts to nothing more than a statement that the locomotive struck the left side of Jones’s vehicle. A jury could reach the same conclusion after observing witness testimony and photographs, and there is no indication that the precise measurements would assist the trier of fact.

2. Opinion That Jones's Vehicle Should Have Been Visible on the Video

Opinion #7 challenges the authenticity of the forward-facing, thirty-minute video.

Although the video does not show Jones's vehicle at any time, Loumiet opines that "[i]f the witness testimony regarding the speed and the post-impact movements of the Buick is correct, then [the vehicle] should have been visible on the video." (*Id.* at 3 ¶ 7.) To arrive at this conclusion, Loumiet relies on the testimony of Hovde and Kolak for the assumption that Jones's vehicle was traveling at either 5 or 10 miles per hour at the time of the accident. (*Id.* at 3 ¶¶ 7(a)–(b).) Using those speeds, the distance between the north gate arm and the point of impact between Jones's vehicle and the train, and Loumiet's calculation that the locomotive camera's field of view extended between 6.8 and 8.3 degrees to the right, Loumiet opines that Jones's vehicle "should have appeared in the locomotive video at, before, and after . . . 5.6 seconds before impact." (*Id.* at 3 ¶¶ 7(c)–(e).) Loumiet continues that "[i]f the Buick paused on the tracks before impact as testified to by Ms. Hovde, then it would have been even closer to its impact position and more within the locomotive camera's field of view . . . so that the Buick again should have appeared in the locomotive video." (*Id.* at 3 ¶ 7(f).) Finally, Loumiet opines that Jones's vehicle should have been visible on the video if it "went as high as the locomotive windows after impact" (as Kolak testified). (*Id.* at 3 ¶ 7(g).)

First, defendants argue that Loumiet made improper credibility determinations in arriving at his opinion because he assumed the truth of Kolak's and Hovde's estimations of the speed of Jones's vehicle at the time of the collision. As discussed above, however, Loumiet is entitled to base his opinions on assumptions contrary to defendants' view of the evidence, provided that there is sufficient support for those assumptions in the record (which there is). *See Richman*, 415 F. Supp. 2d at 942.

Second, defendants contend that Loumiet’s opinions must be excluded because his methodology is not reliable. The court disagrees. Based on the assumption that Jones’s vehicle was traveling at either 5 or 10 miles per hour at the time of the collision, Loumiet calculates the position of Jones’s vehicle at 5.6 seconds before impact. To do so, he uses the distance between the north gate and the point of collision. Defendants do not challenge these calculations. Nor do defendants dispute Loumiet’s determination that the locomotive camera’s field of view extended between 6.8 and 8.3 degrees to the right. Instead, defendants argue that Loumiet never visited the scene and made no determinations regarding the placement of the camera on the locomotive or the angle of its view. (*See* Loumiet Dep. at 11: 17–12: 1, 47: 11–19, 108: 5–15.) Further, defendants argue, Loumiet does not know how much distance in front of the locomotive is obscured from the camera’s view. (*Id.* at 109: 21–110: 4.) While defendants’ objections to Loumiet’s methodology are well taken, they are more appropriately addressed “before the jury with the familiar tools of ‘vigorous cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof.’” *Lasley v. Xtek, Inc.*, 689 F.3d 802, 805 (7th Cir. 2012) (quoting *Daubert*, 509 U.S. at 596); *see also Gayton*, 593 F.3d at 616 (noting that “shaky” expert testimony is “assailable by its opponents through cross-examination”). At this stage, Loumiet’s methodology is sufficiently reliable.⁶

3. Opinion That Jones’s Vision was Obstructed at the Crossing

Loumiet opines in opinion #8 that “[s]ight distance down the track to the east was restricted by trees and vegetation so that it was difficult or impossible for Mr. Jones to see the approaching Metra train.” (Dkt. 138-2 Exh. B. at 4 ¶ 8.) He continues that “[t]he crossing’s

⁶ Loumiet’s opinion will not be admissible in its entirety. As noted above, he concludes by opining that Jones’s vehicle should have appeared in the locomotive video, assuming that Kolak’s testimony—that the car flipped up “at least as high as the vision of the engineer” after impact—is accurate. This opinion is not admissible because it merely restates Kolak’s testimony. Accordingly, it will not assist the trier of fact.

geometry also made it difficult or impossible for Mr. Jones to see the approaching train as the train would have been behind him when he was westbound on Miner Street.” (*Id.*) This opinion is not based in scientific or specialized knowledge and would not assist the jury. Indeed, there is no indication that Loumiet grounded his opinion in calculations that would shed light on Jones’s line of sight at specific positions and times before impact. *Cf. Baker v. Canadian Nat’l/Ill. Cent. Ry. Co.*, 397 F. Supp. 2d 803, 816 & n.11 (S.D. Miss. 2005) (expert accident reconstructionist calculated the train’s speed and the plaintiff’s vehicle positioning to determine that “the ‘train was plainly visible, clear of any sight obstruction’” when the plaintiff’s vehicle was at the stop sign at the crossing). Presumably, he simply viewed photographs and the locomotive video. (See Loumiet Dep. at 150: 7–10 (“Q: Where in that approach would he first have a clear and unobstructed view of the approach of that train? A: That I couldn’t tell you.”). The jury can draw its own conclusions about Jones’s line of sight after viewing photographs and hearing eyewitness testimony.

4. Opinion on the Point at Which Jones’s Vehicle Came to a Rest

Opinion #9 provides as follows:

It is my understanding that the Plaintiff’s video expert [Edward J. Primeau] has opined that the provided locomotive video indicates the Buick was on the front of the locomotive for 3.17 seconds after impact. My analysis of the locomotive event recorder data indicates that the locomotive traveled 208 feet in the 3.17-second interval immediately after impact. Thus, if the video expert is correct, the Buick should have come to rest at least 208 west of the point of impact. Per the police report and post-accident photographs, the Buick came to rest only about 160 feet west of the point of impact.

(Dkt. 138-2 Exh. B at 4 ¶ 9.) Presumably, this opinion is intended to challenge the authenticity of the locomotive video, based on the discrepancy between the point of rest dictated by the video and the actual resting place recorded in the police report.

Loumiet's reliance on Primeau's calculation is fatal to his opinion. While experts may base an opinion on facts or data gleaned from another expert's testimony, *see Dura Auto. Sys. of Ind., Inc. v. CTS Corp.*, 285 F.3d 609, 613 (7th Cir. 2002), Primeau's testimony is inadmissible, for the reasons discussed below. As such, Loumiet may not offer his opinion, which is infected by the inadmissible calculation proffered by Primeau.

5. Opinion as to Why Pignato Did Not Notice Jones's Vehicle Earlier

In opinion #10, Loumiet states that "the most likely explanation as to why . . . Pignato didn't notice the Buick until less than one second before impact was inattention on his part and not maintaining a lookout ahead of the train." (Dkt. 138-2 Exh. B at 4 ¶ 10.) Loumiet's opinion is improper because it amounts to nothing more than unsupported speculation. Indeed, none of the sources cited by Loumiet—Pignato's testimony, the view of the crossing as depicted on the locomotive video, and the crossing dimensions—supports his conclusion. Further, Loumiet's opinion does not assist the trier of fact as it simply tells the jury which result to reach on an ultimate issue; namely, whether Pignato was negligent. *See Klaczak v. Consol. Med. Transport Inc.*, No. 96 C 6502, 2005 WL 1564981, at *8 (N.D. Ill. May 26, 2005) ("Legal conclusions as to ultimate issues generally do not assist the trier of fact because they simply tell the trier of fact what result to reach." (citations omitted)). Loumiet cannot testify as to opinion #10.

6. Opinion as to Whether Jones Could Have Stopped His Vehicle

Loumiet opines as follows in opinion #11:

At 5 mph on wet pavement, the Buick would brake to a stop in about 1.4 feet. At 10 mph on wet pavement, the Buick would brake to a stop in about 5.6 feet. Thus, with earlier warning of the approaching train Mr. Jones could have stopped his car prior to entering the tracks, thereby avoiding collision.

(Dkt. 138-2 Exh. B at 4 ¶ 11.) Loumiet’s opinion is inadmissible. Although defendants do not dispute Loumiet’s calculations, the logical gap between those calculations and his ultimate opinion is too wide. His opinion does not factor in Jones’s reaction time, which would lend empirical support to his conclusion that an audible warning from the train would have caused Jones to brake and stop his vehicle. Nor does Loumiet point to evidence in the record suggesting that Jones attempted to brake at any time prior to the accident or that Pignato sounded the train’s horn, as to support an opinion that an earlier sounding of the horn and consequential braking would have prevented the accident. Absent a basis in scientific or specialized knowledge, Loumiet can only speculate as to whether Jones could have avoided the collision. His opinion will be barred. *See Gen. Elec. Co. v. Joiner*, 522 U.S. 136, 146, 118 S. Ct. 512, 139 L. Ed. 2d 508 (1997) (“Trained experts commonly extrapolate from existing data. But nothing in either *Daubert* or the Federal Rules of Evidence requires a district court to admit opinion evidence that is connected to existing data only by the *ipse dixit* of the expert. A court may conclude that there is simply too great an analytical gap between the data and the opinion proffered.” (citation omitted)).

7. Opinion on Union Pacific’s Compliance with Federal Regulations

Opinion #12 is identical to Byrnes’s opinion on Union Pacific’s compliance with federal regulations governing the crossing’s warning system. Loumiet explains that under federal regulations and the *Manual on Uniform Traffic Control Devices*, the gate arms should have reached a horizontal position at least five seconds before the train reached the crossing. (Dkt. 138-2 Exh. B at 4 ¶ 12.) He then opines, “If Mr. Kovak’s [*sic*] testimony is correct that the gate arm was not coming down until the train was already in the crossing . . . , then the crossing

signals failed to operate in accordance with” the *Manual* and the regulations. (*Id.* at 4–5 ¶ 12.)

This opinion would not assist the jury, for the reasons discussed above.

8. Opinion on Pignato’s Ability to Stop the Train

Finally, in opinion #13, Loumiet opines as to whether Pignato could have stopped the train before it reached the crossing. Pignato testified in his deposition that he first noticed the gates were down at the crossing when he turned on the locomotive bell at the whistle post. (Dkt. 138-4 at 75: 13–14.) Loumiet opines,

If in fact the gates weren’t down when the train was at the whistle post and engineer Pignato had placed the train into emergency braking at that time, the train would have stopped in 1,084 feet, or about 236 feet prior to reaching the crossing so that a collision would not have occurred. In fact engineer Pignato could have applied the train brakes as much as 3 seconds after the whistle post and still stopped the train short of the crossing.

(Dkt. 138-2 Exh. B. at 5 ¶ 13.) Defendants argue that Loumiet’s assumption that the gates were not down has no factual basis. As discussed previously, however, Kolak testified that the gates did not come down until after the accident occurred. Kolak’s testimony provides a sufficient basis for Loumiet’s assumption that the gates were not down when the train passed the whistle post. Accordingly, his opinion cannot be excluded on this ground.

C. Motion to Bar Edward J. Primeau

Plaintiff designated Edward J. Primeau as an expert in forensic analysis and tasked him with authenticating the digital video recordings taken from the locomotive at the time of the accident. (*See* dkt. 140-2 Exh. B at 3.) Primeau filed a report dated February 26, 2014 (dkt. 140-2 Exh. B) and a supplemental report dated June 17, 2014. (Dkt. 140-3 Exh. C.) Primeau reviewed the following three locomotive videos to formulate his opinions: (1) the thirty-minute, forward-facing video; (2) the rear-facing video; and (3) the fifteen-minute, forward-facing video.

Based on his forensic testing, Primeau concludes in his February 26, 2014 report that “neither Video #1, nor Video #2, are authentic.” (Dkt. 140-2 Exh. B at 4.)

Primeau supports this overarching opinion with a number of sub-opinions on the authenticity of the video recordings. For example, he opines that the thirty-minute video has been altered because although “we would expect to see a part of the car, smoke or flames, in the [field of view] within the video provided . . . all of these are absent in the video.” (*Id.*) And he opines that based on his analysis of the video with a vectorscope, the “white balance” of the thirty-minute video changes before and after impact, indicating that the video has been edited. (*Id.* at 10.) Moreover, Primeau opines that it is possible to “launder[] the video before it enters the proprietary player” (*id.* at 12), and he discusses the process he used to arrive at this conclusion in his June 17, 2014 supplemental report. (Dkt. 140-3 Exh. C at 1.) Defendants argue that Primeau’s testimony should be barred because he is not qualified to offer expert testimony on these topics. The court agrees.

Primeau began his career in 1979 as an audio engineer and learned to edit recordings such as books on tape. (Dkt. 140-9 Exh. I at 2.) From 1979 to 1985, he attended the University of Detroit; he majored in communications and minored in criminal justice. (*Id.* at 4.) Primeau worked at Ambience Recording Studio (presumably located in Michigan) as an audio engineer and national sales manager from 1980 to 1988. (*Id.*) Primeau left Ambience in 1987 to focus exclusively on his own business, Primeau Productions, LLC, which he started in 1984. (*Id.* at 2, 4.) According to Primeau’s resume, Primeau Productions, LLC focuses on “marketing videos for professional speakers, audio/video editing, [and] convention/conference production.” (*Id.* at 4.)

Primeau is the author of the book, *The Art of Production*, and has served as a voice identification expert for the *Wall Street Journal*. (*Id.* at 4.) He has previously been a member of the International Association for Identification, the Audio Engineering Society, the American College of Forensic Examiners, and the American Society of Information. (*Id.*) And in 1993, he earned a merit award from the Michigan chapter of the National Academy of Television Arts and Sciences for sound restoration on the NBC show, *Peter and the Wolf*. (*Id.* at 2.)

Primeau is not a licensed forensic analyst; he claims that his formal training in the field consists of two online courses and a week-long program at the University of Colorado at Denver. (Dkt. 140-4 Exh. D (“Primeau Dep.”) at 191: 3–192: 9, 192: 23.) After successfully completing the online courses, Primeau became a certified “forensic consultant” and “criminal investigator”—these certifications give Primeau expertise in “the process of report writing, testifying and conducting depositions” as well as knowledge about how to recover evidence, photograph it, and mark it. (*Id.* at 194: 2–4, 15–17.) At his week-long program at the University of Colorado, Primeau learned about how to use software to authenticate digital audio recordings. (*Id.* at 23: 23–24:1.) Primeau could not recall where he learned to use the vectorscope he employed to examine the white balance in the video; nor could he recall if he had received any training on the device. (*Id.* at 104: 5–20.)

Although Primeau may have experience in voice identification, audio and video editing and production, and perhaps even forensic *audio* analysis, there is no indication that he has the training, experience, or expertise that would enable him to perform a forensic analysis of the videos. His certifications as a forensic consultant and criminal investigator are not relevant to the issues on which he opines. And while plaintiff contends that Primeau is qualified by virtue of his thirty years of experience, the record makes clear that his experience lies in video and

audio editing and production, notwithstanding his resume’s unsupported attestation that he has “completed hundreds of successful audio and video forensic investigations.” (Dkt. 140-9 Exh. I at 2.) Accordingly, Primeau’s forensic video analysis opinions are not admissible. *See United States v. Welch*, 945 F.2d 1378, 1382–83 (7th Cir. 1991) (affirming district court’s decision to bar the testimony of the chief audio production engineer for Wisconsin Public Radio as to whether a surveillance tape had been edited because, among other things, “he lacked sufficient training or experience in forensic tape analysis”); *United States v. Jones*, No. 95-50119, 1996 WL 68236, at *5 (9th Cir. Feb. 16, 1996) (affirming district court’s exclusion of expert testimony as to whether surveillance tapes had been edited when the expert “did not have any formal training in forensic tape analysis” and his experience “was in recording and editing music”); *Graves*, 2011 WL 4007324, at *5 (barring expert testimony when the expert, “an experienced videographer, editor, and producer of videos,” lacked training and expertise “in analyzing aberrations found in a video”); *Holloway v. Ameristar Casino St. Charles, Inc.*, No. 4:07 CV 218 DDN, 2009 WL 5169535, at *6 (E.D. Mo. Dec. 18, 2009) (barring the testimony of an expert with “over thirty years” of experience “in the audio visual field” for failing to show that he was “qualified by experience or education to testify about issues of video editing or tampering” (citations omitted)).

Unqualified to testify about forensics, the remainder of Primeau’s report consists of a few lingering opinions that he is also not qualified to give. The only opinion in Primeau’s report conceivably related to forensic audio analysis is his calculation that Jones’s vehicle remained in contact with the locomotive for 3.17 seconds after impact. (Dkt. 140-2 Exh. B at 4.) Primeau explained in his deposition that he arrived at this calculation by using a sonogram, which “measures frequency and amplitude over time and displays it so that it could be visually

inspected.” (Primeau Dep. at 150: 5–6.) Primeau, however, is not an accident reconstructionist or engineer, and he has no basis for assuming that the sound on which he focused was, in fact, the sound of the locomotive hitting Jones’s vehicle. (*See id.* at 152: 1–13 (“It’s very obvious to me that was the collision.”).) As such, this calculation is not admissible. The same goes for the conclusion he draws using that calculation—that the point at which Jones’s vehicle came to a rest after the accident as recorded in the police report is inconsistent with the resting position dictated by the video. (*See* dkt. 140-2 Exh. B at 4.) That opinion, which is merely a recitation of an opinion from Loumiet’s report (*see* dkt. 138-2 Exh. B at 4 ¶ 9), requires specialized knowledge and training that Primeau does not possess.

For similar reasons, Primeau is not qualified to opine that the video should have shaken up and down, rather than side to side, at the point of impact. And Primeau cites no accepted standards in support of his opinion that the videos should have been “preserved in the digital video recorder that created [them]”—indeed, his only basis for this opinion is his “experience.” (Dkt. 140-2 Exh. B at 6.) Moreover, because Primeau is unqualified to testify about whether the videos were in fact altered, his opinion that it is *possible* to launder a piece of video evidence would not assist the trier of fact and would confuse the jury. Plaintiff has failed to carry her burden to show that Primeau is qualified to render his opinions. His testimony will not be allowed.

II. Plaintiff’s Motions

A. Motion to Bar Richard M. Campbell

Defendants designated Richard M. Campbell as an expert witness. (Dkt. 152-1 at 1.) Campbell is currently the president and chief technical officer of Campbell Technology Corporation (“CTC”), which is an engineering and railroad and traffic signal construction firm.

(*Id.*) Prior to joining CTC, Campbell acquired extensive experience in railroad and traffic signal design and operation. (*Id.* at 1–2.) Defendants retained Campbell to review the data recorder contained in the warning system at the railroad crossing and to opine on the operation of the warning system at the time of the accident. (*See* dkt. 152-2 at 8, 11–12.) Campbell also offers opinions on Jones’s compliance with the Illinois Vehicle Code. (*See id.* at 12.) Although plaintiff does not challenge Campbell’s qualifications as a general matter, she argues that his opinions are inadmissible.

1. Opinions 1–4

The first four opinions of Campbell’s eight-opinion report provide as follows:

1. The post-accident testing of the grade crossing warning system revealed no operational abnormalities. Further, the testing that was performed complied with requirements set forth in the Union Pacific “Yellow Book” of Signal Tests and Standards for Crossings.
2. Based on my observation of the video taken from the locomotive camera . . . the automatic gate for southbound Des Plaines River Road can be observed to be lowered for approximately 19 seconds prior too [*sic*] impact. The video information is consistent with the HCA recorder data.
3. The traffic control signal was programmed to provide a Right-of-Way Transfer Time of 7 seconds and a Queue Clearance Time of 20 seconds with a 1 second equipment reaction time. Based on this information, it is my opinion that there was adequate time for the traffic signal governing the westbound through movement on US 14 (Miner Rd) to complete the preemption sequence with a RED indication displayed and return to a GREEN indication for US 14 (Miner Street). . . .
4. The traffic signal can be observed to be displaying red indications with illuminated blank-out No Left Turn signs from the locomotive video . . . approximately 15 seconds prior to impact. The affidavit provided by Hank Kolak makes reference to the illuminated No Left Turn blank-out signs in four separate points My opinion is that based on the fact that the blank-out signs were illuminated, the analysis of the railroad equipment

circuit design and based on the data provided by the HCA confirms that the Grade Crossing traffic control system was functioning properly.

(*Id.* at 11–12 ¶¶ 1–4.)

Plaintiff first argues that these four opinions should be excluded because they are based on data that are incomplete and therefore unreliable. Specifically, plaintiff maintains that almost twenty-four hours of data are missing from the event log produced by defendants for the period between 7:19:48 AM on August 2 and 7:09:34 AM on August 3, 2010. (*See* *dk.* 141 at 11.) Further, plaintiff contends that the event log given to plaintiff’s counsel before the lawsuit began and the event log produced in discovery are different—the pre-lawsuit document does not have page numbers and portions of the document are printed in red, rather than black, ink.

These arguments go to the weight of Campbell’s opinions, not their admissibility. There is no dispute that the data from August 4, 2014, the date of the accident, are complete. And plaintiff does not challenge Campbell’s qualifications or his ability to interpret the event-recorder data. Plaintiff’s doubts about the accuracy of the data may be raised on cross-examination; they are not a basis, however, to exclude Campbell’s opinions.

Plaintiff next asserts that opinions 2 and 4 must be barred to the extent that they merely describe what the locomotive video shows. The court agrees. In opinion #2, Campbell opines that both the video and the event recorder indicate that the automatic gate at the crossing was down in the horizontal position for approximately nineteen seconds before impact. While Campbell may testify to what the event recorder data say, he may not bolster this finding by opining as to what the video shows. The jury is capable of viewing the video itself and coming to its own conclusion. Similarly, Campbell opines in opinion #4 that based on the locomotive video, Kolak’s testimony, the railroad equipment circuit design, and the event recorder data, “the

Grade Crossing traffic control system was functioning properly.” (Dkt. 152-2 at 12 ¶ 4.) This opinion will not assist the trier of fact to the extent it is based on the video and Kolak’s testimony. Campbell, however, may opine as to the functioning of the traffic control system based on his review of the event recorder data and the railroad equipment circuit design.

2. Opinions 5–8

In the second four opinions of Campbell’s report, he opines on Jones’s compliance with the Illinois Vehicle Code. His opinions are as follows:

5. Mr. Jones proceeded to make a left turn disregarding the official traffic control devices prohibiting such move as defined by Illinois Law 625 ILCS Section 11-305(a) requiring obedience to such devices.

6. Mr. Jones drove his vehicle onto the Des Plaines River Road highway-rail grade crossing failing to stop and yield right-of-way to an approaching train as required by Illinois Law 625 ILCS Section 11-1201 (a-1), 625 ILCS Section 11-1201 Section (a-2), 625 ILCS Section 11-1201 Section (a-4), 625 ILCS 11-1201 Section (a-5) and violating 625 ILCS Section 11-1201(e).

7. Mr. Jones drove his vehicle past flashing red lights warning approaching vehicles to stop due to an approaching train as prohibited by Illinois Law 625 ILCS Section 11-1201 (a-1) and violating 625 ILCS Section 11-1201(e).

8. Mr. Jones drove his vehicle through and under or around the lowered automatic gate for southbound Des Plaines River Road as prohibited by Illinois 625 ILCS Section 11-1201(a-2) and violating ILCS 11-1201(e).

(*Id.* at 12 ¶¶ 5–8.)

The court agrees with plaintiff that these opinions are not admissible. As with Byrnes’s opinion regarding Union Pacific’s compliance with federal regulations, Campbell’s opinions amount to bottom-line legal conclusions that would not assist the jury. *See Fuentes v. Miller*, No. 2:12-CV-454, 2015 WL 3936321, at *5 (N.D. Ind. June 26, 2015) (holding, in a negligence

case under Indiana law, that plaintiff's expert could "not give naked legal conclusions . . . or testify whether certain conduct violated a law or regulation," such as the Indiana Motor Vehicle Code). Further, Campbell's ultimate opinion that "the accident resulted solely from Mr. Jones' own actions" (dkt. 152-2 at 12–13), is an inadmissible legal conclusion on an outcome-determinative issue—namely, proximate cause.

B. Motion to Bar Michael W. Rogers

Defendants designated Michael W. Rogers as an expert witness and asked him to reconstruct the accident and to determine why Jones's vehicle is not visible in the forward-facing, thirty-minute locomotive video. (Dkt. 153-2 at 1.) Rogers holds degrees in mechanical engineering and is a licensed engineer in Illinois and Michigan. (Dkt. 153-1 at 2.) He currently works as a senior vice president for Packer Engineering, Inc., which provides consulting services in connection with vehicular component and systems testing, restraint systems, and vehicle dynamics and accident reconstruction. (*Id.* at 1.)

Rogers offers the following four opinions in his report, all of which plaintiff maintains are improper:

1. The accident was caused by Timothy Jones disregarding the activated and properly working railroad grade crossing warning devices including, but not limited to, the no-left turn lights and down grade crossing gate for southbound River Road. Mr. Jones turned left and drove in front of UP train number 690 which was outbound on track 1 traveling at 46 mph.
2. The no-left turn warning lights for westbound Route 14/Miner St and the grade crossing gate for southbound River Road were both functioning properly based on the TIR image prior to impact between locomotive M160 and Mr. Jones' 2007 Buick Lucerne.
3. The 2007 Buick Lucerne driven by Mr. Jones is not visible in the TIR image because it remained outside the TIR field of view up to the point of impact. The exact speed of the Buick could not be determined but the Buick was capable of accelerating and

traveling at reasonable speeds on wet pavement necessary to travel from the stop bar onto southbound River Rd and remain out of the TIR image while reaching the point of impact.

4. Following the initial impact, the Buick was moved along and to the right of the tracks until it separated from the locomotive shortly after leaving the paved surface of River Road and thus would not be visible in the TIR image following impact when it rolled onto its roof and caught fire.

(*Id.* at 13–14 ¶¶ 1–4.)

The court agrees with plaintiff that opinions 1 and 2 are inadmissible because they are not proper expert testimony and invade the province of the jury. Although Rogers reconstructed the accident in this case, there is no indication that opinion #1 is based on his accident reconstruction analysis or any other specialized knowledge. Instead, Rogers assumed the role of the jury, weighed the evidence (including the locomotive video and witness testimony), and came to a conclusion. (*See* dkt. 153-3 (“Rogers Dep.”) at 153: 3–10 (“I’ve considered lots of things. It’s very clear to me though that the video shows, without question, that the gates are down for a long period of time . . . which is inconsistent with Mr. Kolak’s recollection of what he believes he saw.”).) Thus, his opinion will not assist the trier of fact. Similarly, opinion #2 is based solely on Rogers’s observation of the video, which is within the ken of the average juror.

Although plaintiff challenges the data underlying opinions 3 and 4, her contentions are unpersuasive. To arrive at his opinions, Rogers inspected the accident site on August 11, 2010 and took photographs, measurements, and laser scans. (Dkt. 153-2 at 1.) He determined the final resting position of the locomotive and the point of impact between Jones’s vehicle and the locomotive using the event recorder data and the locomotive video. (*Id.* at 8.) Based on the scrape marks observed at the scene of the accident, Rogers was able to determine the post-impact movements of Jones’s vehicle. (*Id.*)

Rogers calculated the field of view of the locomotive video camera by conducting “inverse camera photogrammetry,” meaning that Rogers measured the distances and angles to the objects contained in the camera’s view at the locomotive’s final resting place to determine the location of the camera in the locomotive. (*Id.* at 9.) From these calculations and his determination, based on the video, that the traffic light at the intersection of Miner Street and River Road was red until at least ten seconds before impact, Rogers explains why Jones’s vehicle cannot be seen in the video. (*Id.* at 12.) Specifically, Rogers calculates the minimum speeds Jones’s vehicle would have needed to travel to reach the point of impact while remaining outside of the camera’s field of view, depending on whether the vehicle drove around the gate or through it. (*Id.* at 13.)

Plaintiff argues that Rogers’s opinions are flawed because he does not take into account the speed of Jones’s vehicle as it traveled through the crossing and ignores the estimations of speed provided by the eyewitnesses. According to plaintiff, “[t]he rate of speed one travels across the crossing is highly relevant to how long you can see the vehicle or person in a crossing prior to impact with a METRA train.” (Dkt. 142 at 5 (citations omitted).) Plaintiff’s criticism misses the point. As Rogers explains in his report and deposition, he was unable to determine the precise speed of Jones’s vehicle, largely because it is unclear what path the vehicle took to the point of impact. (*See* dkt. 153-2 at 12; Rogers Dep. at 34: 1–7.) Thus a primary purpose of his analysis is to determine the minimum speeds at which Jones’s vehicle would have needed to travel, depending on its driving path, to reach the point of impact while remaining outside of the camera’s field of view. Plaintiff cannot challenge the reliability of Rogers’s report for failing to account for Jones’s speed, when one of the goals of Rogers’s analysis was to determine the speed of Jones’s vehicle. And contrary to plaintiff’s contentions, Rogers did not “construct a set of

circumstances to explain away the lack of the vehicle being seen in the video.” (*See* dkt. 142 at 7.) Rather, he performed an accident reconstruction analysis, assuming the accuracy of the video.

Plaintiff also argues that Rogers’s measurements are erroneous, making his opinions unreliable. For example, based on the height of Jones’s vehicle, Rogers calculated that the vehicle would be in the locomotive camera’s blind spot, and thus not be visible, up to 283.7 feet away from the location of the camera. (Dkt. 153-2 at 11 Fig. 13.) Plaintiff contends that the actual distance to the end of the camera’s blind spot is 226 feet; in support, she attaches what appears to be a screen shot of Google Earth measurements. (*See* dkt. 142 Exh. H.) Similarly, plaintiff asserts, without support, that Rogers did not take any measurements “on the city block where the locomotive came to rest post-accident,” and maintains that Rogers “mistakenly established the point of impact.” (Dkt. 142 at 10, 14.) Plaintiff may raise these points on cross-examination. They do provide a sufficient basis to exclude Rogers’s testimony.

Finally, plaintiff argues that Rogers could not be questioned about his opinions or the bases for them at his deposition because defense counsel failed to provide the actual measurements he had taken. Therefore, plaintiff reasons, Rogers’s report failed to comply with Federal Rule of Civil Procedure 26(a)(2)(B) and the exclusion of his testimony is required under Rule 37(c)(1). The parties’ discovery dispute is not a sufficient reason to bar Rogers’s report and testimony under Federal Rule of Evidence 702 and *Daubert*. And to the extent plaintiff is attempting to bring a discovery motion under Rule 37, the motion is not properly before the court. Under Local Rule 37.2, a party must file with her motion under Rule 26 or 37 a certification “that after consultation in person or by telephone and good faith attempts to resolve differences,” the parties were unable to reach an agreement. The movant must also state the

time, place, and date of such a conference, and the names of the participating parties. Because plaintiff's request lacks that certification, it is insufficient.

C. Motion to Bar Bruce E. Koenig

Defendants named Bruce E. Koenig as an expert in forensic video and audio analysis. (*See* dkt. 151-1.) Koenig holds degrees in physics, mathematics, and forensic science and since 1996, has been the owner of BEK TEK LLC, a consulting firm specializing in forensic video and audio analysis. (Dkt. 151-1 Exh. G at 1.) Prior to starting BEK, Koenig worked as a supervisory special agent in the engineering section of the Federal Bureau of Investigation for twenty-one years. (*Id.*) In that capacity, he conducted examinations of audio and video recordings and provided authentication, intelligibility enhancement, and voice-comparison services. (*Id.*) In this case, Koenig reviewed the fifteen-minute, forward-facing video and the rear-facing video. He opines that the forward-facing video “is an original, executable video/audio recording” and that the rear-facing video is “corrupted, due to one or more problems in the camera/microphone system,” such that conclusions about the forensic authenticity of the video are not possible. (Dkt. 151-1 at 3.) He also explains why he believes the opinions contained in the Primeau report are false. (*Id.* at 4–9.)

Plaintiff does not challenge Koenig's qualifications or the reliability of his methodology. Instead, the entirety of plaintiff's argument challenges the authenticity of the fifteen-minute video. According to plaintiff, Union Pacific produced the thirty-minute video in discovery but never produced the fifteen-minute video—plaintiff's counsel only discovered the fifteen-minute video while reviewing Koenig's report. Plaintiff suspects that the fifteen-minute video is not authentic because there is no chain of custody document supporting its reliability and argues that, because the video was not produced by the close of discovery, it should be barred under Rule

37(c). Defendants maintain their position that the fifteen-minute video is merely a shorter version of the thirty-minute video.

A *Daubert* motion is not the appropriate avenue to determine the authenticity of the fifteen-minute video. Indeed, the parties have offered the court no information on its authenticity as to make a determination on that issue possible. And to the extent plaintiff seeks to bar the video as a sanction for nondisclosure under Rule 37(c), plaintiff has not provided the certification required under Local Rule 37.2. Further, because the relevance of Koenig's testimony is directly tied to the authenticity of the fifteen-minute video, a ruling on the *Daubert* motion is not possible either. As such, the court will deny plaintiff's motion without prejudice to refiling. Plaintiff may file a motion *in limine* challenging the authenticity of the fifteen-minute video and Koenig's testimony.

CONCLUSION AND ORDER

For the foregoing reasons, defendants' motion to bar the testimony of Edward J. Primeau (dkt. 139) is granted in its entirety. Plaintiff's motion to bar the testimony of Bruce E. Koenig (dkt. 143) is denied without prejudice. The remaining *Daubert* motions (dks. 135, 137, 141, 142) are granted in part and denied in part for the reasons stated herein.

Date: September 8, 2015


U.S. District Judge Joan H. Lefkow